# Substance Abuse Treatment Outcomes and System Improvements


Argeo Paul Cellucci, Governor

Jane Swift, Lieutenant Governor

William D. O'Leary, Secretary, EOHHS

Howard K. Koh, M.D., M.P.H., Commissioner, DPH

Mayra Rodriguez-Howard, M.S.W., Director, BSAS

Prepared by:

Health and Addictions Research, Inc.



June, 2000


## Executive Office of Health and Human Services

## Massachusetts Department of Public Health

## Bureau of Substance Abuse Services

# Substance Abuse Treatment Outcomes and System Improvements

**Report Prepared for:**

**Executive Office of Health and Human Services**
**Massachusetts Department of Public Health**
**Bureau of Substance Abuse Services**

**Argeo Paul Cellucci, Governor**
**Jane Swift, Lieutenant Governor**
**William D. O'Leary, Secretary, EOHHS**
**Howard K. Koh, M.D., M.P.H., Commissioner, DPH**
**Mayra Rodriguez-Howard, M.S.W., Director, BSAS**

**by:**

**Mary F. Brolin, M.A.**
**Health and Addictions Research, Inc.**
**100 Boylston Street, Suite 300**
**Boston, MA 02116**

**June, 2000**

# Table of Contents

# I. Executive Summary

The Massachusetts Department of Public Health, Bureau of Substance Abuse Services (BSAS) works with substance abuse prevention and treatment organizations throughout the Commonwealth to promote an integrated, consumer-focused continuum of substance abuse services that is responsive to the public health prevention and treatment needs of individuals, families, and communities. Substance abuse, a pervasive health problem with social, public safety, and economic consequences, affects nearly everyone to some extent. BSAS' primary challenges are to ensure the provision of the most appropriate level of service and to achieve the best possible client outcomes while utilizing funding sources efficiently.

Data from several reporting systems maintained by the Bureau of Substance Abuse Services indicate that treatment works. Specifically, the data show that:

- Clients in residential treatment programs significantly improved their employment status and abstinence rates while decreasing criminal involvement, use of emergency rooms and inpatient services, and psychological and social problems.
- Significant improvements in employment were seen for both women and men in residential treatment, as well as for whites, blacks, and Latinos.
- In FY 1999, clients in specialized residential programs for pregnant and post-partum women gave birth to 52 healthy babies, saving Massachusetts an estimated $66,000 per child in neonatal intensive care unit treatment for the complications associated with Fetal Alcohol Syndrome and/or fetal drug exposure.
- Outpatient counseling improved clients' levels of abstinence and decreased their criminal involvement and psychological problems.
- Clients in methadone treatment reported significantly more employment, less crime, and fewer admissions to hospitals, emergency rooms and detoxification services.
- Nine out of ten clients in Driver Alcohol Education services (DAE – for first offender drunk drivers) from FY 1994 did not re-enter treatment for drunk driving (either first or multiple offender programs) in the five fiscal years following treatment.
- Relapse Prevention Management for high utilizers of acute treatment services (ATS) significantly decreased ATS readmissions by 8 admissions per 100 clients per month.
- Supportive housing clients, particularly women and Latinos, increased their levels of part-time and full-time employment between admission and discharge.

These outcomes can be translated into improved quality of life for individuals, families and communities through improved health, social functioning, legal involvement, and employment. Moreover, these improvements lead to cost savings through lower health care and crime costs and increased productivity and earnings. Addressing substance abuse problems through prevention and treatment, therefore, supports the Massachusetts Department of Public Health's mission of "helping people lead healthy lives in healthy communities."

BSAS strives to improve outcomes for clients by adapting services to meet their complex medical and social service needs. Toward this end, BSAS initiates and supports new services to fill the gaps in the continuum of care. Since 1998, the following services have been added to the continuum of care:

- Transitional support services to provide recovery support between acute treatment services and the next levels of treatment services in the continuum of care.
- Youth intervention services to bridge the gap between prevention and treatment services for youth.
- Criminal Justice Collaboratives or TEAM Programs (Teaching – Education – Awareness – Motivation) to bring together the criminal justice and substance abuse treatment systems to address the needs of high-risk individuals involved with the courts.
- Dual Diagnosis Program to reduce attrition and high service utilization by individuals with severe and persistent mental illness who also have substance abuse or dependency problems.
- Community Housing to provide supportive housing for previously homeless individuals and families in recovery.
- Relapse Prevention Management to decrease relapse and increase retention in aftercare for high utilizers of acute treatment services.
- Children in Need of Services (CHINS) to provide substance abuse treatment and associated services to youth (and their families) for whom a CHINS petition has been filed.

BSAS also works to improve client outcomes through quality improvement, research, and interagency collaborations to bring new techniques to the system, improve upon system operations, and link the substance abuse system with other state systems serving the same clients. BSAS' quality improvement initiative seeks to maximize the effectiveness and efficiency of the substance abuse prevention and treatment system by working with prevention and treatment providers to develop and implement continuous quality improvement systems within individual programs and across the service system.

BSAS also works closely with providers and researchers to bring Federal projects to the Commonwealth to study the Massachusetts substance abuse prevention and treatment system. In the past two years, such efforts have brought in more than $11 million to Massachusetts.

To meet the complex health and social needs of its clients, BSAS collaborates extensively with other state agencies. Currently, BSAS participates in more than 30 collaborative projects with agencies such as the Department of Mental Health, Department of Transitional Assistance, Division of Medical Assistance, Housing and Urban Development, Department of Public Safety, Department of Social Services, and Department of Youth Services.

The outcomes and system improvements reported here support the premise that treatment works. More research is needed, however, for substance abuse services that do not currently have

performance and outcomes monitoring. This gap in the research will be filled as BSAS works closely with prevention and treatment providers to improve outcomes reporting.

BSAS, in collaboration with Youth Prevention Support Services at CASPAR, Prevention Support Services at the Medical Foundation and Health and Addictions Research, has worked extensively with Youth Prevention Programs and Prevention Centers to identify and report on appropriate outcomes. Within the Youth Prevention Programs, in particular, programs report on a common set of core outcomes, as well as specialized outcomes that relate specifically to their own programs. These data will be available within the next year.

The Treatment Outcomes and Performance Pilot Study Enhanced (TOPPS II) will also help to improve the performance and outcomes monitoring system within the Massachusetts substance abuse treatment system. The project, a collaboration with BSAS, Health and Addictions Research, Inc. and John Snow Institute, is funded by the Center for Substance Abuse Treatment within the Substance Abuse and Mental Health Services Administration. The study tests enhanced admission and discharge forms and periodic in-treatment assessments for residential, outpatient, and methadone services. These instruments focus on improving the quality of information gathered, measuring services received during treatment, and providing measures of post-treatment outcomes. Successful implementation of this project will encourage the development and adoption of performance and outcome monitoring systems within other treatment modalities.

# II. Introduction

Substance abuse is a pervasive health problem that contributes to social, public safety, and economic problems. In the most recent national assessment of costs, Harwood and colleagues estimated that alcohol and drug abuse cost our nation $246 billion in 1992.[1] A significant portion of these costs resulted from the health, crime, and financial consequences associated with substance abuse. Substance abuse and addiction are public health concerns that in one way or another affect every resident of Massachusetts.

Each year in Massachusetts, there are more than 2,000 deaths and 60,000 hospitalizations related to alcohol and other drug use.[2] Injection drug use is the most frequently reported mode of HIV exposure in Massachusetts, accounting for one out of three newly reported cases.[3] Each year there are more than 100,000 admissions to publicly funded substance abuse treatment services.

More than 70,000 arrests each year in the Commonwealth result from operating under the influence and narcotics charges.[2] In 1992, nearly half of all people arrested in Massachusetts reported alcohol or other drug problems, an increase of 21% over 1988.[4] Additionally, 21% of all individuals in prison on January 1, 1997 were convicted of drug offenses,[5] up from 14% of the inmate population in 1988.[4] Furthermore, three out of four adult probationers and half of youth probationers in Massachusetts in 1994 reported alcohol or other drug problems.[4]

Substance abuse and its consequences negatively affect the quality of life for individuals and communities. Moreover, these consequences have direct cost implications. More than half the costs in the Harwood study mentioned above were associated with drug-related crime (58.5%), including costs associated with incarceration, victimization, and system costs to process offenders. Other costs were related to decreased productivity from premature death (14.9%) and drug-related illness (14.5%) and healthcare expenditures (10.2%).[1] Addressing substance abuse problems through prevention and treatment leads both to improved quality of life for individuals and communities, as well as to cost savings.

To achieve the Massachusetts Department of Public Health's mission of "helping people lead healthy lives in healthy communities," the Bureau of Substance Abuse Services works to ensure the delivery of the highest quality, culturally-competent, cost-effective array of alcohol and other drug prevention, treatment, and recovery services to individuals, families and communities in Massachusetts. This report details outcomes related to substance abuse treatment services. The report describes data sources in Section III and presents treatment outcomes in Section IV. Section V highlights ways BSAS is working to fill gaps in services and Section VI discusses other improvements to the system through quality improvement efforts, research, and collaboration. Finally, Section VII summarizes the information in this report.

---

[1] Harwood, H., Fountain, D., Livermore, G. (1998). *The Economic Costs of Alcohol and Drug Abuse in the United States 1992.* U.S. Department of Health and Human Services, National Institutes of Health, National Institute on Drug Abuse, NIH Publication Number 98-4327, September, 1998.

[2] Massachusetts Department of Public Health, Bureau of Substance Abuse Services. (in process). *Indicators of Substance Use in Massachusetts*. Prepared by Health and Addictions Research, Inc.

[3] Massachusetts Department of Public Health, HIV/AIDS Bureau and Bureau of Communicable Disease Control. (2000). *Epidemiological Profile FY '2000.*

[4] Drug Strategies. (1996). *Massachusetts Profile: Alcohol, Tobacco & Drugs* . Washington, DC: Drug Strategies.

[5] Sampson, L. L., Kaufmann, C., & Hartwell, B. A. (1999). *January 1, 1997 Inmate Statistics* . Concord, MA: Massachusetts Department of Correction, Research and Planning Division.

# III. Data Sources

The data reported herein come from three distinct sources: the Substance Abuse Management Information System (SAMIS), Methadone Quality Assurance System (MTQAS), and Treatment Outcome and Performance Pilot Study I (TOPPS I). Each of these data systems are described below.

## A. Substance Abuse Management Information System

BSAS currently maintains a comprehensive management information system, the Substance Abuse Management Information System. Uniform data on admissions and discharges from alcoholism treatment programs receiving public funds have been collected by BSAS since February of 1983. A parallel system was implemented for drug abuse treatment services in July of 1985 and the two systems were modified and integrated during 1987. In 1990 the system was significantly revised to conform to federal regulations.

SAMIS consists of separate databases for admission, discharge, and billing data that include and surpass the federal minimum data set requirements. Data elements include employment status; substance use history; treatment history; goal achievement; use of state, health, and social services; service utilization; and costs. In the past few years, unique identifiers have been constructed in the database to implement a client tracking system. This system has facilitated client-level analyses that inform BSAS about individuals in the system, their service utilization, costs and needs.

Using this comprehensive data collection system, BSAS monitors service trends, identifies changing client characteristics, and analyzes client outcomes and treatment costs. SAMIS allows state policy-makers to adjust, develop, and implement data-driven policy and planning decisions within Massachusetts. The analyses from SAMIS reported here include only those admissions which were also discharged in the same fiscal year to compare pre-treatment and post-treatment data on the same population.

## B. Methadone Quality Assurance System

BSAS collaborated with Health and Addictions Research, Inc. to develop Massachusetts' portion of the NIDA-funded Methadone Treatment Quality Assurance System (MTQAS), a multi-state research project that developed new intake, in-treatment, and discharge forms for clients in methadone treatment. The Massachusetts MTQAS effort proved so successful in implementing an outcome monitoring system throughout publicly funded methadone programs that Massachusetts decided to continue MTQAS on the state level. BSAS receives intake, periodic reassessment, and discharge data on all clients in publicly funded methadone treatment programs. These assessments include data on employment; arrests; hospital, emergency room, and detoxification admissions; and psychological problems.

## C. Treatment Outcome and Performance Pilot Study I

The Center for Substance Abuse Treatment, within the Federal Substance Abuse and Mental Health Services Administration, funded 14 states to conduct pilot studies of instruments and systems to monitor program performance and outcomes in publicly funded substance abuse treatment programs. The Massachusetts TOPPS I study was a collaboration between BSAS, Health and Addictions Research, John Snow Institute, and Brandeis University. TOPPS I was the initial study to develop and test a comprehensive, integrated outcomes monitoring system for the substance abuse treatment system in Massachusetts. Instruments specifically designed and pilot tested were the Treatment Services Assessment, the Primary Counselor Checklist, the Enhanced Discharge Form, and the Follow-up Interview. Data collected on these forms include health status, use of inpatient services, employment, psychological and social functioning, alcohol and other drug use, and criminal activity.

# IV. Treatment Works!

BSAS' mission is to promote an integrated, consumer-focused continuum of substance abuse services that is responsive to the public health prevention and treatment needs of individuals, families and communities, and is committed to quality, availability and accessibility. Toward this end, BSAS purchases community-based alcohol and other drug treatment and prevention services targeted for the most needy sectors of the population. Through its work, BSAS responds to changes in clients' needs, treatment and prevention approaches, and public health concerns such as HIV education and harm reduction strategies. BSAS promotes enhanced treatment services to meet the complex medical and social services needs of individuals entering the treatment system today. BSAS and the substance abuse prevention and treatment providers in the Commonwealth work in an environment of rapidly changing social and economic policies. BSAS' primary challenge is to ensure the provision of the most appropriate level of service to achieve the best possible client outcomes while utilizing funding sources efficiently.

## A. Residential Treatment

**Residential treatment significantly improved clients' employment and abstinence and decreased criminal involvement, use of emergency rooms and inpatient services, and psychological and social problems.**

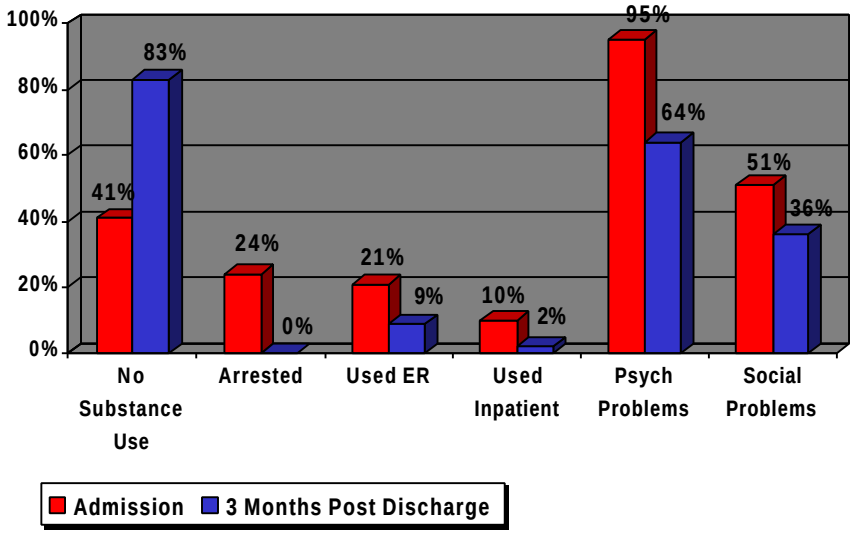
BSAS supports three types of residential treatment programs: recovery homes, therapeutic communities, and social model recovery homes. Recovery Homes provide a structured rehabilitative environment for individuals recovering from addiction to alcohol and/or other drugs. These programs emphasize client recovery and treatment within a structured, therapeutic community. Clients are encouraged to integrate with the community and to access community resources. Therapeutic Communities provide a highly structured environment that stresses client treatment and recovery within the parameters of the program structure. Social Model Recovery Homes offer an alternative to Recovery Homes and Therapeutic Communities, emphasizing peer counseling and case management. Clients are expected to be involved in the external community through work, education, and volunteering.

Data from the Substance Abuse Management Information System (SAMIS) indicate improved employment among residential clients. In FY 1999, 5% of the clients admitted to residential programs (N=6,023) reported full- or part-time employment. At discharge, 41% of these clients were employed full- or part-time. Significant improvements in employment were made for both women and men in residential services. Similarly, significant improvements in employment were made for whites, blacks, and Latinos (See Table 4.1).

| *Table 4.1*<br>*Residential Admissions: Comparison on Employment*<br>*Admission Versus Discharge – SAMIS FY 1999* | | |
|---|---|---|
| | **Percent Employed at Admission** | **Percent Employed at Discharge** |
| ***Women (n=1,824)*** | 3% | 25% |
| ***Men (n=4,199)*** | 5% | 48% |
| ***White (4,205)*** | 5% | 43% |
| ***Black (n=1,026)*** | 3% | 40% |
| ***Latino (n=594)*** | 3% | 34% |
| ***Other (n=198)*** | 2% | 41% |
| ***Total (n=6,023)*** | 5% | 41% |
| All findings significant at $p \leq .01$ using Chi square test of significance | | |

The Treatment Outcome and Performance Pilot Study I assessed client functioning before entering residential services and three months after discharge. The study found that residential clients significantly increased abstinence from alcohol and other drugs. In addition, residential clients significantly decreased criminal involvement, use of emergency rooms and inpatient services, and psychological and social problems (See Figure 4.1). These outcomes can be translated into improved health and functioning for the individual, as well as improved community health and social interaction.

**Figure 4.1**
**Residential Clients: Comparison on Outcome Variables**
**Admission Versus Three Months Post-Discharge Assessment (N=160)***




* All reported findings significant at $p \leq .01$ using Chi square test for all variables except "arrested", which used the Fischer Exact Test.
Data Source: Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Treatment Outcome and Performance Pilot Study I
Prepared by: Health and Addictions Research, Inc. for the Massachusetts Department of Public Health, Bureau of Substance Abuse Services

***Residential Services for Pregnant and Postpartum Women and Their Children:*** Eleven of the twenty-four residential programs that serve women have specialized services for pregnant and postpartum women with their infants. These programs offer linkage to prenatal and pediatric care, obstetrical services, early intervention programs, aftercare treatment and planning, and other appropriate and necessary services. Women in all trimesters of pregnancy may enter these programs. Postpartum women with infants up to two months of age may also enter.

**Women in residential treatment programs for pregnant and post-partum women gave birth to 52 healthy babies, saving Massachusetts an estimated $66,000 per child.[6]**

The Institute for Health and Recovery, funded by BSAS to oversee and provide technical assistance to residential treatment programs providing services to pregnant and post-partum women, reported 30 healthy babies born to women in these programs in fiscal year (FY) 1996, 42 healthy babies in FY 97, and 57 in FY 98. In FY 1999, women in residential treatment programs for pregnant and post-partum women gave birth to 52 healthy babies. By providing treatment to these women, Massachusetts may have saved an estimated $66,000 per child[6] in FY 1999 that might have been spent on neonatal intensive care unit treatment for complications associated with Fetal Alcohol Syndrome and/or fetal drug exposure.

## B. Outpatient Counseling

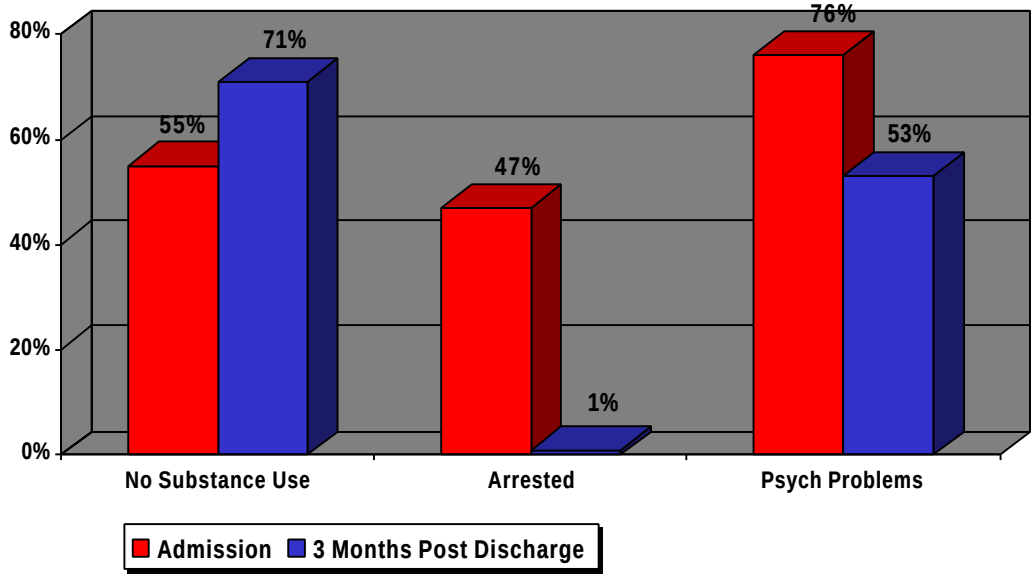
**Outpatient Counseling improved the quality of life and decreased costs for individuals, communities and the state through increased levels of abstinence and decreases in criminal involvement and psychological problems.**

Outpatient Counseling provides treatment for adults and adolescents, their families, and/or their significant others experiencing the dysfunctional effects of the use of alcohol or other drugs. Clients are assisted in gaining and maintaining skills for a drug-free lifestyle. Services include assessment and treatment planning; individual, group, and family counseling; health education (including HIV/AIDS, STD, and TB prevention and treatment and tobacco cessation); and aftercare planning and referral.

The Treatment Outcome and Performance Pilot Study I found that outpatient clients significantly increased abstinence from alcohol and other drugs, from 55% not using any substances at intake to 71% post-discharge. Moreover, significantly fewer outpatient clients reported any criminal activity (47% at intake to 1% post-discharge) or psychological problems (76% at intake to 53% post-discharge -- See Figure 4.2). These outcomes have a direct impact on quality of life and costs for individuals, communities, and the state overall.

[6] According to Mid Atlantic Medical Services, Inc. (MAMSI) and Matria Healthcare, Neonatal Intensive Care Units cost $2,000 a day. The average stay per infant is 33 days which totals $66,000 per infant. Source: http://www.matria.com/press/061897.html

**Figure 4.2**
**Outpatient Clients: Comparison on Outcome Variables**
**Admission Versus Three Months Post-Discharge Assessment (N=85)***




* All reported findings significant at $p \leq .01$ using Chi square test for all variables except "arrested", which used the Fischer Exact Test.
Data Source: Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Treatment Outcome and Performance Pilot Study I
Prepared by: Health and Addictions Research, Inc. for the Massachusetts Department of Public Health, Bureau of Substance Abuse Services

## C. Narcotic Treatment

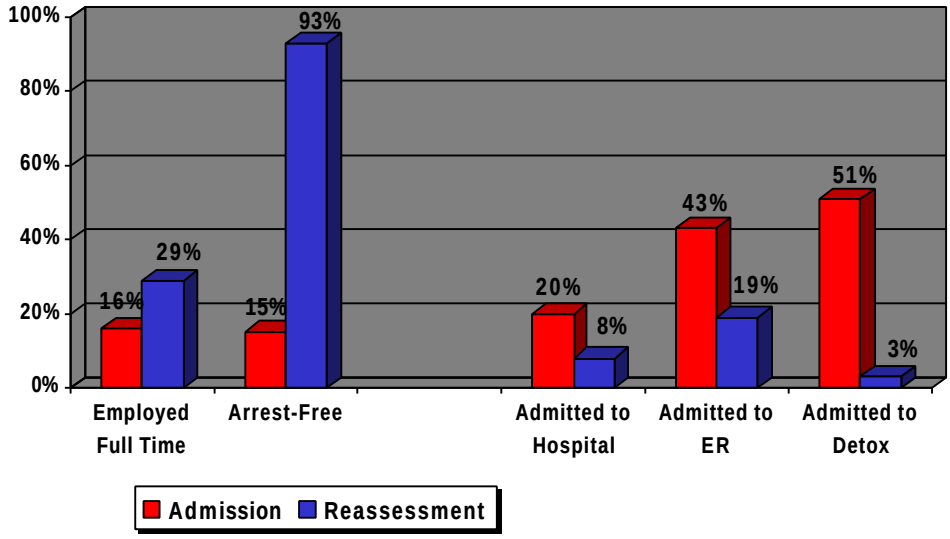
**Clients in methadone treatment reported significantly more employment, less crime, and fewer admissions to hospitals, emergency rooms and detoxification services.**

Narcotic Treatment offers medically monitored pharmacological (methadone and LAAM) services for opiate-addicted clients. These services combine medical and pharmacological interventions with professional counseling, education, and vocational services. Services are offered on both a short-term (detoxification) and long-term (treatment) basis.

Data from the Methadone Quality Assurance System, maintained by BSAS, shows significant improvements in employment, crime, and health (See Figure 4.3). Clients in methadone treatment who were reassessed in the first quarter of FY 2000 (July 1 to September 30, 1999) reported significantly more employment (29% versus 16% at admission) and less crime (93% arrest-free versus 15% at admission). Additionally, these clients had fewer admissions to hospitals (8% versus 20% at admission), emergency rooms (19% versus 43% at admission), and detoxification services (3% versus 51% at admission). Increases in employment contribute to the tax base in the Commonwealth. Decreases in crime result in savings in the criminal justice system in terms of processing and potential jail and prison time. Additionally, decreases in

crime result in increased public safety, protecting potential victims from future crimes. Finally, decreases in hospital, emergency room, and detoxification admissions result in savings to the Commonwealth and taxpayers since these clients generally receive publicly funded health care services.

**Figure 4.3**
**Methadone Clients: Comparison on Outcome Variables**
**Admission Assessment Versus Reassessment***
**Between 10/1/99 and 12/31/99 (N=3,503)**




* All reported findings significant at $p \leq .01$ using Chi square test of significance.
Data Source: Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Methadone Quality Assurance System
Prepared by: Health and Addictions Research, Inc. for the Massachusetts Department of Public Health, Bureau of Substance Abuse Services

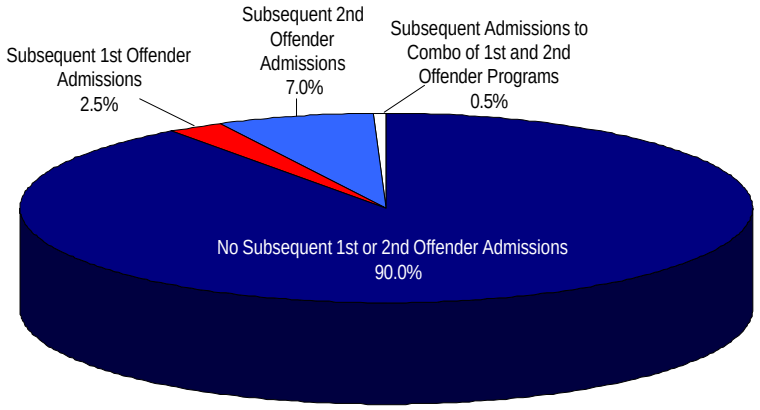
## D. First Offender Driver Alcohol Education (DAE)

First Offender DAE programs are targeted for individuals who are convicted of a driving-under-the-influence first offense violation and choose to participate in the educational program option of Massachusetts General Laws, Chapter 90, Section 24D. DAE programs provide a structured psycho-educational opportunity for participants to identify and understand alcohol use and abuse issues and drinking-and-driving behaviors. Programs provide 40 hours of services over a 16 – 20 week period.

**DAE programs, in combination with the entire experience of being convicted of a driving-under-the-influence violation, effectively prevented the majority of individuals from being convicted of a second offense.**

DAE programs, in combination with the entire experience of being convicted of a Driving-Under-the-Influence violation, effectively prevented the majority of individuals from being convicted of a second offense. Nine out of ten DAE clients (first offenders) from FY 1994 did not re-enter treatment for drunk driving (either first or multiple offender programs) in the five fiscal years following treatment (See Figure 4.4). Moreover, data from SAMIS for FY 1999 indicate that four out of five DAE clients (80%) reported no (30%) or decreased (50%) alcohol use at discharge.

**Figure 4.4**
**Percent of DAE Clients in FY 1994 with Subsequent Drunk Driver Admissions in FY 1995-FY 1999 (N=9,656)**




Data Source: Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Substance Abuse Treatment MIS
Prepared by: Health and Addictions Research, Inc. for the Massachusetts Department of Public Health, Bureau of Substance Abuse Services

Although the majority of DAE clients in SAMIS for FY 1999 were employed at admission (79%), black DAE clients showed a marked improvement in employment from admission to discharge. Sixty-eight percent (68%) of black DAE clients in FY 1999 (n=349) reported full- or part-time employment at admission. At discharge, 81% reported employment, an increase of 19%.

## E. Relapse Prevention Management

**Relapse Prevention Management for high utilizers of acute treatment services (ATS) significantly decreased ATS readmissions.**

Relapse Prevention Management (RPM) is a statewide case management demonstration project for high utilizers of acute treatment services. Relapse Prevention Managers work with clients to identify relapse triggers, provide referrals to aftercare, and monitor clients' progress through the continuum of care. Key outcomes for clients are decreased relapse, increased retention in aftercare, and decreased use of acute treatment services.

In 1995, more than 49,000 individuals were admitted to BSAS-funded Residential, Outpatient or ATS programs. Almost 2,000 of these individuals (4%) accounted for more than 4 admissions

each per year to the three modalities. To address the treatment needs of these heavy utilizers and to decrease the number of annual ATS admissions per client, BSAS designed and implemented the Relapse Prevention Management Project. An evaluation of the RPM Project by Health and Addictions Research revealed that the rate of admissions by clients to ATS dropped significantly[7] after entering the RPM Program.[8,9] While participating in the project, clients decreased admissions to ATS programs by 8.17 admissions per 100 clients per month. The evaluation also found that the Program strengthened the continuum of care for substance abuse treatment and allied services through the networking and relationships forged by the Relapse Prevention Manager with treatment and other community services.

## F. Supportive Housing

**Supportive Housing clients, particularly women and Latinos, showed increases in employment from admission to discharge.**

Supportive Housing programs provide permanent alcohol-free and drug-free housing. These settings promote a culture of recovery by encouraging residents to coalesce as a community, share responsibility for maintaining the living environment, and support each other in their recovery. Residents are assisted in their recovery through case management services and a structured milieu that reinforces appropriate behavior and the development of independent living skills.

The Bureau of Substance Abuse Services funds case management services within supportive housing programs. Individuals, in conjunction with the case manager, develop Individual Service Plans (ISP). Case managers provide residents with assistance in seeking and accessing needed services. Case managers also encourage residents to develop interests and employment opportunities outside of the program. While many participants in supported housing programs may choose to move on, some programs offer the option to stay long term.

Data from SAMIS show improved employment among supportive housing clients, particularly among women and Latinos. In FY 1999, 24% of the supportive housing clients (N=157) reported full- or part-time employment. At discharge, 31% of these clients were employed full- or part-time. Improvements in employment were evidenced for both women (18% at admission versus 27% at discharge) and Latinos (5% at admission versus 30% at discharge -- See Table 4.2).

[7] Significant at $p \leq .01$ using the Student's t test of significance.

[8] Simon, D., Kammerer, N., & Stewart E. (April 10, 2000). Relapse Prevention Management Demonstration Project Outcomes. Prepared by Health and Addictions Research, Inc. for the Massachusetts Department of Public Health, Bureau of Substance Abuse Services.

[9] Analyses were limited to clients who received a minimum "dose" of the intervention, which was defined as 90 consecutive days in the Project (n=144).

*Table 4.2*
*Supportive Housing Admissions: Comparison on Employment Admission Versus Discharge – SAMIS FY 1999*

| | Percent Employed at Admission | Percent Employed at Discharge |
|---|---|---|
| ***Women (n=98)*** | 18% | 27% |
| ***Men (n=59)*** | 32% | 39% |
| ***White (113)*** | 26% | 30% |
| ***Black (n=21)*** | 24% | 33% |
| ***Latino (n=20)*** | 5% | 30% |
| ***Other (n=3)*** | 67% | 67% |
| ***Total (n=157)*** | 24% | 31% |

# VI. Filling the Gaps

Although BSAS, in combination with substance abuse prevention and treatment organizations statewide, has developed a strong continuum of services to address substance abuse problems facing residents of the Commonwealth, it continually scans the environment to identify emerging needs and innovative services. The following section describes new services BSAS has initiated and supported, as well as demonstration projects that are being evaluated to better understand the impact of these programs on clients and the system.

## A. Transitional Services

Transitional Services are short-term residential support services for substance abusing men and women that include Transitional Support Services (TSS) and Post-Detox/Pre-Recovery Programs (PDPR). These services are known as "Next Step" programs and are designed to bridge the gap in the service continuum between acute treatment services and residential rehabilitation services or other aftercare. Transitional Services provide stabilization, intensive case management, and comprehensive discharge planning services to individuals who require a safe and structured environment to support their post-detoxification recovery process.

In FY 1998, BSAS analyzed clients' participation in treatment programs following initial detoxification. These analyses showed that a large percentage of clients in acute treatment services (ATS) were readmitted back to ATS. This recidivism was partially due to a shortened length of stay in ATS and a limited availability of recovery home beds. These patterns of service use did not vary by public payers (e.g., Medicaid, BSAS). Three thousand two hundred and nineteen clients (3,219 or 15%) had three or more ATS admissions during the first three quarters of FY 1999.

These data, supported by informal reports by providers, indicated a gap in services. BSAS worked with providers to develop and fund Transitional Support Services (TSS). Transitional Support Services provide recovery support between acute treatment services (detoxification) and the next levels of treatment services in the continuum of care. BSAS began a pilot program in FY 1999. Currently, there are 8 TSS programs in 4 of the 6 statewide service regions, providing a total of 212 beds. BSAS has identified TSS as a major modality for future expansion. Services will be expanded in the next year to cover all the regions in the state.

## B. Youth Intervention Programs

Recognizing the need to bridge the gap between primary prevention and treatment services for youth, BSAS has recently funded two demonstration projects that address the needs of individuals, families and communities in the early stages of substance abuse problems. These projects are both youth/family centered and community focused, and offer a range of services

such as youth intervention activities, family support services, substance abuse education, community capacity building, and parent peer support.

## C. Massachusetts Inhalant Abuse Task Force

The Massachusetts Inhalant Abuse Task Force was created in 1995 by the Massachusetts Department of Public Health, Bureau of Substance Abuse Services, to provide parents, teachers, healthcare workers and other youth-serving professionals with the most up-to-date information available on the prevention of inhalant abuse.

The Task Force is a joint effort of the Bureau of Substance Abuse Services, CASPAR Youth Support Services and the Medical Foundation's Prevention Support Services. In response to increasing inhalant abuse among adolescents reported in the 1993 Massachusetts Department of Public Health, Bureau of Substance Abuse Services' Triennial School Survey, the Task Force officially launched *A Breath Away: A Campaign to Prevent Inhalant Abuse*. *A Breath Away* is a statewide campaign designed to increase public awareness of inhalant abuse through the dissemination of educational materials and information about effective prevention strategies. The Task Force is the only task force nationwide to be sponsored by a state Department of Public Health.

## D. Demonstration Projects

BSAS funds demonstration projects to test the efficacy of services on particular client populations. These projects measure whether they are reaching the intended populations, describe implementation models, and report outcomes for clients and systems. Some of BSAS' current demonstration projects include the following programs:

***Criminal Justice Collaboratives/TEAM:*** The Criminal Justice Collaboratives or TEAM (Teaching – Education – Awareness – Motivation) Programs bring together the criminal justice and substance abuse treatment systems to address the needs of substance-abusing offenders and individuals with substance abuse problems who are at risk of involvement with the courts. In this statewide demonstration project, six programs serve adults and six serve youth. The Adult TEAM Programs consist of an assessment, an 8-week psychoeducational session on early abstinence, and an 8-week psychoeducational session on relapse prevention. The Youth TEAM Programs consist of an assessment and a 6-week psychoeducational session to foster cognitive changes in beliefs about substance abuse for youth. In addition, they provide support groups for parents.

***Services to the Dually Disordered:*** Several pilot projects have been developed to respond to the specialized needs of individuals with severe and persistent mental illness who are also involved in using substances. These projects include acute treatment services, residential rehabilitation services, housing programs and a statewide planning initiative. These projects include active collaboration between the Departments of Public Health and Mental Health,

the Division of Medical Assistance, substance abuse and mental health providers, consumers, and consumer advocates.

***Community Housing:*** This program provides supportive housing for previously homeless families and individuals in recovery through a joint effort between the Department of Public Health, Department of Housing and Community Development, Massachusetts Housing and Finance Administration, Department of Social Services, and other agencies. As a "Shelter Plus Care" program, it links federal rental assistance from Housing and Urban Development (HUD) with state-funded substance abuse treatment and case management services. This demonstration project is located in five sites in Central and Western Massachusetts.

***Relapse Prevention Management:*** Relapse Prevention Management is a statewide case management demonstration project for high utilizers of acute treatment services. Relapse Prevention Managers work with clients to identify relapse triggers, provide referrals to aftercare, and monitor clients' progress through the continuum of care. Key outcomes for clients are decreased relapse, increased retention in aftercare, and decreased use of acute treatment services.

***Children In Need of Services (CHINS):*** BSAS funds five demonstration sites to provide substance abuse treatment and associated services for youth (and their families) for whom a Children in Need of Services (CHINS) petition has been filed though not necessarily adjudicated. The target population includes youth between 11 and 16 years of age. Services provided to youth and their families include assessment, intake and development of individual intervention service plans and family service plans, psychoeducational groups, youth intervention activities, family support services, substance abuse treatment, and communication with the probation board, courts, schools, and DSS where applicable.

# VII. Improving the System

With promising scientific improvements in prevention and treatment approaches, BSAS recognizes the importance of continuously improving the substance abuse prevention and treatment system in the Commonwealth. Toward this end, BSAS engages in quality improvement, research, and collaboration to bring new techniques to the system, to improve upon system operations, and to link the substance abuse system with other state systems serving the same clients. In this way, BSAS strives to improve future services and outcomes.

## A. Quality Improvement

The Quality Improvement Collaborative (QIC), a Substance Abuse Program Peer Initiative of Health and Addictions Research, Inc. and funded by BSAS, seeks to maximize the effectiveness and efficiency of the substance abuse prevention and treatment system by working with prevention and treatment providers to develop and implement continuous quality improvement systems within individual programs and across the service system. The results of this effort are enhanced quality of services along the continuum of care.

Over the past three years the QIC has facilitated the following interagency teams:

***Youth Prevention Program, Group Technical Assistance Team:*** developed the Youth Connectedness Survey to measure a youth's connections to family, schools, and community for use in Massachusetts' Youth Prevention Programs.

***ATS System Re-design Team:*** involved key stakeholders, including Massachusetts Housing and Shelter Alliance, Residential Recovery Homes and consumers, to recommend modifications to the ATS delivery system that focused on improved service delivery, adequate reimbursement, and improved patient outcomes.

***Acute Treatment Service Against Medical Advice (AMA) Team:*** piloted an intervention to reduce the frequency of clients leaving acute treatment services within 48 hours of admission. Although the "Under 48 Hour Group" did not result in a reduced AMA rate, team members reported that it was helpful in making new clients feel more comfortable in treatment and enhanced the orientation to the treatment process. They also identified improvements to the intervention to test in future initiatives.

***Residential Patient Placement Criteria Development Team:*** developed the Massachusetts Residential Recovery Home Patient Placement Criteria for Admission, Continuing Care and Discharge. These include the minimum criteria for admission, continuing care and discharge for residential substance abuse treatment services in Massachusetts. These criteria follow the format established by ASAM (American Society of Addiction Medicine).

***Residential Outcome Measures Team (ROMT), Phase I:*** developed and piloted the Residential Recovery Program Discharge Criteria Checklist with Outcome Measure Checklist.

***Residential Outcome Measures Team, Phase II:*** revised the outcome measurement instrument based on pilot test results and developed a training model for the residential system in which providers themselves took the lead in disseminating information to the field. The team also worked with BSAS to identify a way to collect and report on the data system-wide. As a result of the residential projects, BSAS adopted the instruments as standards within all BSAS-funded residential treatment programs and ROMT team members conducted a system-wide rollout that included training at each residential program in the state.

***Outpatient Outcome Measurement Team:*** developed and piloted the Outpatient Substance Abuse Consumer Satisfaction Survey, an outcome tool measuring client satisfaction and client functional status.

***Methadone Phases of Treatment Team, Phase I:*** developed an operational definition of phases of treatment for methadone and developed and piloted a Phases of Treatment Checklist Instrument that includes practice standards, specific criteria for admission and completion of each phase of treatment and measurable outcomes.

***Methadone Phases of Treatment, Phase II:*** refined and tested the Methadone Phases of Treatment instrument for reliability and validity using clinician- and client-reported data.

***Methadone Phases of Treatment, Phase III:*** conducted more extensive testing of the Opioid Treatment Client Progress Instrument (OTCPI) developed by the Phase II Team. The instrument identified three distinct phases of treatment that can be used by clinicians to better meet the needs of their clients.

***Board Development and Fiscal Management Team:*** developed a Board Development and Fiscal Management Self-Assessment instrument and database to strengthen the capacity of community-based, BSAS-funded agencies to survive and grow in the highly competitive health care environment.

## B. Research Projects

The Bureau of Substance Abuse Services has worked closely with providers and researchers throughout the Commonwealth to apply and obtain funding for research on substance abuse prevention and treatment initiatives in the state. In the past two years, such efforts have brought in more than $11 million to the Commonwealth to study the substance abuse prevention and treatment system. In addition to the major initiatives described below, BSAS also supports research by participating in work groups, facilitating access to data, and providing letters of support or grant review and comment.

***Collaboration for Action, Leadership, And Learning (MassCALL):*** In July 1998, the Center for Substance Abuse Prevention (CSAP) within the Federal Substance Abuse and Mental Health Services Administration (SAMHSA) awarded Massachusetts a $9 million State Incentive Cooperative Agreement. The purpose of this three-year grant is to develop a statewide Comprehensive Substance Abuse Prevention Strategy and Funding Plan and to

support communities to implement and evaluate science-based programs to reduce alcohol, tobacco, marijuana and other drug abuse among youth ages 12-17.

MassCALL is a collaboration between BSAS, Health and Addictions Research, Social Science Research and Evaluation, and 25 community coalitions that receive funding to implement science-based prevention strategies. The Advisory Council, co-chaired by Governor Cellucci and Secretary O'Leary (Health and Human Services), guides the management of this Agreement.

***Massachusetts State Treatment Needs Assessment Project (STNAP):*** The Massachusetts State Treatment Needs Assessment Project (STNAP) seeks to align the Bureau of Substance Abuse Services' needs assessment efforts with its expanding role as an initiator of new services within the continuum of care and its role as the single state authority for Block Grant reporting including treatment outcomes and performance monitoring. The State Treatment Needs Assessment Study is funded by the Center for Substance Abuse Treatment within SAMHSA. The project runs from October, 1999 through September, 2002, with total funding of $500,000. STNAP includes the following four major study components.

**Criminal Justice Needs Assessment:** This study, a collaboration between Brown University, Harvard Medical School and BSAS, will assess the demand for substance abuse treatment in the criminal justice population, specifically those individuals in community corrections. Additionally, this project will develop an extension of the Center for Substance Abuse Treatment (CSAT) core protocol for assessment of treatment needs among criminal justice populations, as well as test the predictive power of the extension.

**Treatment Needs Among Injection Drug Users:** This study, a collaboration between Boston University and BSAS, will examine the gaps in services to African-American and Caucasian injection drug users in five domains: health care, health insurance, housing, substance abuse pre-treatment services, and employment to increase their success in substance abuse treatment.

**Treatment Needs Among the Elderly:** This study, a collaboration between John Snow Institute and BSAS, will conduct screenings for alcohol treatment needs among the elderly currently receiving health care in a primary care setting, using methods and procedures from a national multi-site study funded by SAMHSA.

**Substance Abuse Surveillance Network:** Building on its experience as the Boston representative to NIDA's Community Epidemiology Work Group (CEWG -- which tracks trends in illicit drug use), Health and Addictions Research, in collaboration with BSAS and other state agencies, will establish a Substance Abuse Surveillance Network (SASN). SASN will identify emerging statewide patterns of illicit drug and alcohol use. This study also aims to gather information about the needs of special populations, as well as information about illicit drug availability, to further enhance addiction treatment.

***Treatment Outcomes & Performance Pilot Study Enhanced (TOPPS II):*** The Center for Substance Abuse Treatment within SAMHSA has awarded a $1.5 million dollar grant to assist Massachusetts in updating its substance abuse performance and outcome monitoring system designed to assess the outcomes of substance abuse treatment. Altogether, nineteen

states have received cooperative agreements to conduct both state studies and a coordinated national study on substance abuse outcomes. TOPPS II will develop and test a comprehensive, integrated outcomes monitoring system for substance abuse treatment in the state of Massachusetts. The focus is on improving the quality of information gathered, measuring services received during treatment, and providing measures of post-treatment outcomes. This three-year project, running from October, 1998 through September, 2001, is an opportunity for Massachusetts to continue to be known as an innovative leader in developing data systems that help BSAS and providers to plan for future treatment needs.

## C. Collaborations

Interagency collaboration to more effectively address substance abuse services required by clients of other state agencies has become a major focus the BSAS External Affairs Division, created in early 1999. The primary goal of the External Affairs Division has been to assist other state agencies in increasing their capacity to address substance abuse service needs within their system, and to increase access to the BSAS delivery system for their staff and clients. Currently, BSAS collaborates with the following agencies[10]:

- Alcoholic Beverage Control Partnership
- Children's Trust Fund
- Coalition to End Homelessness
- Community Health Network Areas
- County Sheriffs' Offices
- Department of Correction
- Department of Education
- Department of Housing and Community Development
- Department of Mental Health
- Department of Public Safety
- Department of Social Services
- Department of Transitional Assistance
- Department of Youth Services
- District Courts
- Division of Medical Assistance
- DPH AIDS Bureau
- Essex County District Attorney
- Executive Office of Health and Human Services
- Health Maintenance Organizations
- HealthCare for the Homeless
- Houses of Correction
- Housing and Urban Development
- Managed Behavioral Health Partnership
- Massachusetts Board of Higher Education
- Massachusetts Commission for the Deaf and Hard of Hearing
- Massachusetts Housing and Finance Administration
- Massachusetts Housing and Shelter Alliance
- Massachusetts Rehabilitation Commission
- Office for Children
- Office of the Attorney General
- Office of the Commissioner of Probation
- Substance abuse treatment and prevention providers
- Supreme Judicial Court
- University of Massachusetts

[10] See the table entitled **Bureau Of Substance Abuse Services (BSAS) Collaborative Projects 1999-2000** in the ***BSAS Overview*** (separate document), for a detailed list of current BSAS collaborations.

# VIII. Summary

The information reported herein supports the premise that treatment works, particularly within residential, outpatient, methadone, driver alcohol education, relapse prevention management and supportive housing programs. Substance abuse treatment within these modalities was shown to improve the employment, health, social and legal status of individuals, thereby improving their quality of life. These improvements have a direct impact on community health and social functioning, as well as cost savings. Moreover, BSAS continues to improve publicly funded substance abuse services within the Commonwealth by filling gaps in the continuum of care, implementing continuous quality improvement efforts, supporting research, and increasing collaboration across state agencies.

More research is needed, however, with regard to substance abuse services that currently do not have performance and outcome monitoring. This gap in the research will be filled as BSAS works closely with prevention and treatment providers to improve outcome reporting. During the past year, BSAS has collaborated with CASPAR Youth Support Services, Medical Foundation Prevention Support Services and Health and Addictions Research to improve reporting on outcomes among Youth Prevention Programs and Prevention Centers. Youth prevention programs address substance abuse prevention needs among high-risk and under-served populations through community-based programs. Prevention Centers provide a holistic approach to community prevention while also addressing specific problems such as alcohol, tobacco, and other drug abuse. The Youth Prevention Programs in Massachusetts recently began reporting outcomes for participants in their programs. These outcomes include a core set of variables that are consistent across all Youth Prevention Programs, as well as unique variables that pertain to individual programs. Similarly, the ten Prevention Centers in Massachusetts are now reporting outcomes related to their substance abuse prevention activities. Outcomes from these data systems will be available in the next year.

On the treatment side, TOPPS II is striving to develop a comprehensive performance and outcome monitoring system. This system improves upon the current information collected in SAMIS by enhancing outcome variables on the admission and discharge forms and by collecting key outcomes at periodic in-treatment assessments. This performance and outcome monitoring system will provide richer outcomes within the residential, outpatient and narcotic treatment programs. Its successful implementation will encourage similar performance and outcome monitoring systems in other treatment modalities.